

## IN THE CLAIMS

Please cancel claim 2, 4 and 9-10; add claim 14; and amend claims 1, 3, 5-8, and 11-13 as follows:

1. (Currently Amended) A method of locating a selected type of passive electronic marker, ~~[[;]]~~ said method comprising:

transmitting a signal at a frequency associated with a selected type of passive electronic marker;

receiving a signal from a marker; ~~[[and]]~~

determining a frequency distribution of the received signal by performing synchronous detection on a signal received during said receiving;

indicating presence of the selected type of passive electronic marker if, responsive to said determining, the frequency having the greatest amplitude is the frequency associated with the selected type of passive electronic marker; and

preventing an indication for other passive electronic marker types associated with a frequency having less than the greatest amplitude.

2. (Canceled)

3. (Currently Amended) The method as claimed in claim 1, further including ~~comprising~~:

indicating ~~presence of~~ absence of the selected type of passive electronic marker if, responsive to said determining, the frequency with the greatest amplitude is not the frequency associated with the selected type of passive electronic marker.

4. (Canceled)

5. (Currently Amended) The method as claimed in claim ~~[[4]]~~ 1, wherein said performing synchronous detection on the received signal ~~comprises~~ includes:

converting the received signal to a digital signal; and

sequentially processing the digital signal with in-phase and phase-shifted reference

frequencies.

6. (Currently Amended) The method as claimed in claim 1, wherein said determining ~~comprises~~ includes performing a Fourier Transform on a signal received during said receiving.

7. (Currently Amended) The method as claimed in claim 1, wherein said determining ~~comprises~~ includes passing a signal received during said receiving through parallel narrow-band filters.

8. (Currently Amended) A system for locating a selected type of passive electronic marker; said system comprising:

a transmitter for transmitting a signal at a frequency associated with a selected type of passive electronic marker;

a receiver for receiving a signal from a marker; [[and,]]

a processor coupled to the receiver for determining a frequency distribution of the received signal by performing synchronous detection on the received signal; and

a display unit for indicating presence of the selected type of passive electronic marker if a frequency with the greatest amplitude determined by the processor is associated with the selected type of passive electronic marker, wherein said display unit prevents an indication for other passive electronic marker types associated with a frequency having less than the greatest amplitude.

9. (Canceled)

10. (Canceled)

11. (Currently Amended) The system as claimed in claim 8 [[10]], wherein said ~~means for~~ performing synchronous detection on the received signal includes a digital signal processor synchronous detector.

12. (Currently Amended) The system as claimed in claim 8, wherein said processor ~~includes means for performing~~ performs a Fourier Transform on the received signal.

13. (Currently Amended) The system as claimed in claim 8, wherein said processor ~~includes~~ utilizes parallel narrow-band filters to determine the frequency distribution.

14. (New) A method of locating a selected type of passive electronic marker, said method comprising:

transmitting a signal at a frequency associated with a selected type of passive electronic marker;

receiving a signal from a marker;

determining a frequency distribution of the received signal by performing synchronous detection on a signal received during said receiving; and

preventing an indication for other passive electronic marker types associated with a frequency having less than the greatest amplitude.

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